

PM10 Attainment/Maintenance Plan Telluride

Technical Support Document

Emission Inventory



November 19, 2009

**Colorado Department of Public Health and Environment
Air Pollution Control Division
4300 Cherry Creek Drive South
Denver, Colorado 80246**

Table of Contents

1.	EMISSION INVENTORY METHODOLOGY	1
2.	2007 EMISSION INVENTORY SUMMARY	2
3.	2015 EMISSION INVENTORY SUMMARY	3
4.	2021 EMISSION INVENTORY SUMMARY	4
5.	REFERENCES	5



1. Emission Inventory Methodology

The Air Pollution Control Division (APCD) developed the 2007 and 2021 emission inventories in the Revised PM₁₀ Attainment/Maintenance Plan for the Telluride Attainment/Maintenance Area using U.S. Environmental Protection Agency (EPA) approved emissions modeling methods, including EPA's MOBILE6 model and local VMT data for on-road mobile source emissions, EPA's non-road model, local demographic information for area and off-road sources, and reported actual emissions for point sources. Estimates for future emissions are based on the above-mentioned tools and the EPA's Economic Growth and Analysis System (EGAS) model for estimating future point sources activity, and VMT growth for on-road mobile sources.

Highway mobile source emissions are from the EPA model MOBILE6, an emission factor model for predicting gram per mile emissions of Hydrocarbons (HC), Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Carbon Dioxide (CO₂), Particulate Matter (PM), and toxics from cars, trucks, and motorcycles under various conditions.

Non-road source emissions are from the EPA Non-Road Model. This model includes the impact of future controls on non-road engines, which is used in equipment such as lawn and garden equipment and construction equipment.

Area source emissions (including heating, construction, railroads, etc.) are from the 2002 EPA National Emissions Inventory (NEI), grown to 2007 and 2021 by population growth from data from the State. For more documentation for these categories, refer to the NEI documentation (EPA, 2008).

Under Air Quality Control Commission Regulation No. 3, the APCD requires any source that emits two tons per year or greater to submit an Air Pollutant Emission Notice (APEN) (APCD, 2008). This means that sources that emit less than two tons per year are not necessarily accounted for in an emissions inventory. The point source emissions for the Telluride area were obtained from this tracking system. The emission estimates are made using a variety of methodologies. Data from source-specific emission tests, or continuous emission monitors are preferable, but not always available. The EPA has developed a variety of emission factors to estimate emissions as well. Emission factors are frequently the best or only method available for estimating emissions.

There are no point sources in the Telluride Attainment/Maintenance Area.

2. 2007 Emission Inventory Summary

This section presents the 2007 emission inventories for the attainment/maintenance plan.

Table 1. 2007 PM10 Emission Inventory (tons per year).

Area and Mobile Sources		PM-10 (Tons/Year)
	Agriculture	0.98
	Commercial Cooking	4.26
	Construction	49.40
	Fuel Combustion	0.03
	Highway Vehicles	1.28
	Non-Road	9.22
	Paved Road-Dust	67.11
	Structure Fires	0.04
	Unpaved Road-Dust	59.31
	Woodburning	42.83
	TOTAL	234.46

3. 2015 Emission Inventory Summary

This section presents the 2015 emission inventories for the attainment/maintenance plan.

Table 2. 2015 PM10 Emission Inventory (tons per year).

Area and Mobile Sources		PM-10 Tons/Year
	Agriculture	0.98
	Commercial Cooking	5.51
	Construction	63.82
	Fuel Combustion	0.03
	Highway Vehicles	1.22
	Non-Road	11.92
	Paved Road-Dust	89.72
	Structure Fires	0.05
	Unpaved Road-Dust	79.29
	Woodburning	55.34
	TOTAL	307.88

4. 2021 Emission Inventory Summary

This section presents the 2021 emission inventories for the attainment/maintenance plan.

Table 3. 2021 PM10 Emission Inventory (tons per year).

Area and Mobile Sources		PM-10 (Tons/Year)
	Agriculture	0.98
	Commercial Cooking	6.44
	Construction	74.63
	Fuel Combustion	0.04
	Highway Vehicles	1.18
	Non-Road	13.94
	Paved Road-Dust	106.68
	Structure Fires	0.06
	Unpaved Road-Dust	94.28
	Woodburning	64.72
	TOTAL	362.94

5. References

APCD, 2008. Air Quality Control Commission Regulation Number 3. Stationary Source Permitting and Air Pollutant Emission Notice Requirements. 5 CCR 1001-5.
< <http://www.cdphe.state.co.us/regulations/airregs/100103stationarysourcepermitting.pdf> >

U.S. EPA, 2008. "2002 National Emissions Inventory Data & Documentation."
< <http://www.epa.gov/ttn/chief/net/2002inventory.html#documentation> >

